



UNITED STATES DEPARTMENT OF COMMERCE
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/845,752	04/25/97	SHRIVASTAVA	R B-5500

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MM92/0314

EXAMINER

CRANE, S

ART UNIT

PAPER NUMBER

2811

DATE MAILED:

03/14/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.
08/845,752

Applicant(s)
Shrivastava et al.

Examiner
Sara W. Crane

Group Art Unit
2811



☒ Responsive to communication(s) filed on 12/21/99 (CPA filing papers)

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-24, 26-34 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-24, 26-34 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☐ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☐ received.

☐ received in Application No. (Series Code/Serial Number) _____.

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____.

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☐ Notice of References Cited, PTO-892

☐ Information Disclosure Statement(s), PTO-1449, Paper No(s). _____

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

CPA filing papers have been received on 12/21/99. However, the examiner cannot find in the case file any amendment or other response to the previous Office action of 6/22/99. The previous Office action is therefore repeated below.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 23 is rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

The specification does not appear to disclose source connecting members that are double diffused. The source contacts are double diffused (specification, page 11, first full paragraph).

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

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Claims 1-6, 10-14, 17-18, 20-22, 24 and 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sung et al.

See reasons of record in the Office action of 10/6/98. As noted previously, one must rotate the Sung figures 1A and 1B by 90 degrees, so that "rows" can be associated with the direction of the Sung conductors 40', running across the page in rotated figure 1B.

With respect to the newly-added limitation to claim 1, Sung "conductive member" 40' is "associated with" each of the two rows immediately adjacent (one above and one below) because it carries voltage to be applied to the source region shared between these two rows. With respect to claim 1, Sung conductor 40' is associated with two rows, and makes contact with the common sources shared between the two rows. With respect to claim 13, the Sung conductor 40' "enables the selective erasing of the memory cells of the first row," because it allows a voltage to be applied to the sources of the memory cells of the first row, and erasing requires that a voltage be applied to the sources. The Sung structure would enable "selective" erasing, because only one source line 40' need be biased at any given time. One or both rows connected to a single source line 40' could be erased, depending on the word line biasing for either or both of the rows.

Claims 7-9, 15-16, 19, 23 and 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sung et al. as applied to claims 1-6, 10-14, 17-18, 20-22, 24 and 26-31 above, and further in view of Shrivastava and Juengling.

See reasons of record in the Office action of 10/6/98.

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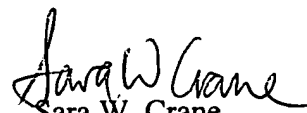
Conclusion

Applicant's arguments filed with respect to the pending claims have been fully considered but they are not persuasive. Applicant argues that Sung et al. does not teach separate self-aligned source lines for each pair of adjacent rows. This is clearly shown in the Sung figures, however. Figures 1a and 1b show three source lines 40', each separate and distinct from the others. These source contacts are "self-aligned" as noted by the title. Sung et al. does indeed describe bit lines 44, as well as source lines 40', but the teachings related to the bit lines, as well as other structures, do not detract from the teachings related to the source lines. Note that the functional language describing enablement of selective erasing would be met by the Sung source lines 40', because the structure required for this function is the same structure as taught in the reference, i.e., separate lines 40' for the sources (as opposed to a common substrate connection for all sources as might be found in many prior art flash EPROM devices).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to S. Crane, whose telephone number is (703) 308-4894.

The fax phone number for this Group is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist, whose telephone number is (703) 308-0956.


Sara W. Crane
Examiner
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